# CHANGES IN THE GREAT SLAVE LAKE FISHING FLEET, 1945-63

by

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## CHANGES IN THE

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# Great Slave Lake fishing fleet, 1945-63

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IN TODAY'S SPACE AGE, where only the spectacular can compete in global news, one is liable to overlook the slow change occurring in the inland fisheries of Western Canada. That these fisheries are not remaining static is evident by information collected in the course of an investigation by the Fisheries Research Board of Canada on the Great Slave Lake commercial fishery. This article describes its fishing fleet and outlines the changes that have occurred in nearly 20 years.

**Fig. 1.** Commercial fishing skiff and boats at Hay River in 1961. (photo by N.F.B.)

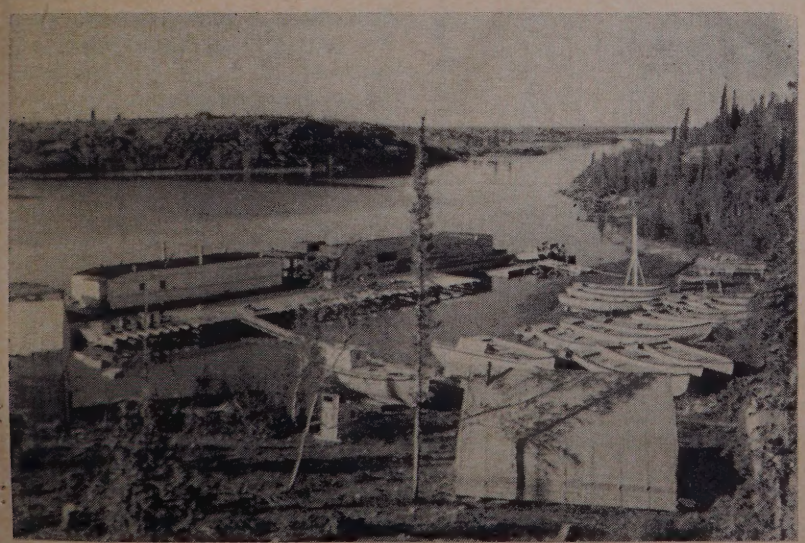

**Fig. 2.** McInnes Products Corporation camp in 1946 (photo by the late D.S. Rawson).

### Description of Fishery

Although some trials with trawls and trap nets have been made on Great Slave Lake, commercial fishing is conducted exclusively by gill nets. The legal mesh size is 5½-in. stretched measure. There is now no restriction on the amount of gear. Lake trout and lake whitefish are the main commercial species, although some northern pike, walleye and inconnu are marketed. Practically all production is sold in the United States. Quotas have been established for the amount of lake trout and lake whitefish that may be taken annually from each region of the lake. There are two fishing seasons — an open water one from May to September and an ice fishery from December to March. Regulations are established and enforced by the Department of Fisheries of Canada.

Various features of the summer commercial fishery are listed in Table I. Until 1945, the fish populations were used only by residents, mainly Indians, for themselves and their dogs. Then McInnes Products Corporation, of Edmonton, began summer operations using water transportation to bring the catch to the railhead at Waterways, Alberta. Winter fishing started a year later. The fishery expanded in 1949 when a summer road to Hay River, a settlement on the south shore, became operational and an increase in the catch was allowed. Now all companies operate out of Hay River. The fleet, however, brings the catch to Hay River only when fishing in that region. At other times camps are established at various places on

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**Fig. 3.** McInnes Products Corporation boats in 1947 (photo by N.F.B.)

TABLE 1.

Features of Great Slave Lake summer commercial fishery.

| | | Number of | | |
|---|---|---|---|---|
| *Year* | *Production*[a] | *Companies* | *Boats* | *Skiffs*[b] |
| 1945 | 1.42 | 1 | 20 | 0 |
| 1946 | 2.27 | 1 | 22 | 0 |
| 1947 | 2.25 | 1 | 18 | 0 |
| 1948 | 2.32 | 2 | 21 | 0 |
| 1949 | 4.64 | 7 | 63 | 0 |
| 1950 | 3.95 | 5 | 57 | 0 |
| 1951 | 4.27 | 5 | 61 | 0 |
| 1952 | 4.09 | 5 | 53 | 0 |
| 1953 | 3.42 | 5 | 40 | 0 |
| 1954 | 4.14 | 5 | 50 | 6 |
| 1955 | 4.84 | 6 | 64 | 6 |
| 1956 | 4.44 | 7 | 65 | 4 |
| 1957 | 4.36 | 6 | 68 | 9 |
| 1958 | 3.60 | 5 | 57 | 7 |
| 1959 | 3.32 | 5 | 59 | 22 |
| 1960 | 3.38 | 5 | 53 | 29 |
| 1961 | 3.15 | 4 | 36 | 25 |
| 1962 | 3.62 | 4 | 39 | 77 |
| 1963 | 3.18 | 4 | 40 | 59 |

[a] *Millions of pounds of lake trout and lake whitefish.*
[b] *Exclusive of Treaty Indian vessels from 1949-1953. Skiff fishermen do not necessarily fish the whole season.*

the lake. Freight boats then bring the fish into Hay River. Fishermen were generally recruited from the prairie provinces. Some now reside at Hay River, although others return home between seasons.

### Description of Fishing Fleet

Two types of vessels are used. The general differences between them are illustrated in Fig. 1. The reason for the increase in the number of fish boats in 1949 has been mentioned. The number of boats remained rather constant at about 60 until the decline in 1952 to 1954, which was followed by the peak (68) in 1957. Since that time, further decreases have been evident, but these have been offset by an increase in the numbers of skiffs. The differences in boat numbers over 20 years have resulted from changes in the number of operating companies and the number of boats used by each. Skiffs were not used until 1954. Previously, however, limited fishing was undertaken in canoes and other small craft by some Indians.

Quantitative information on the fishing fleet has been derived mainly from surveys carried out in 1958 and 1963. At these times the fishermen were interviewed and the results tabulated on a standard form. Information on the fleet prior to this has been obtained from general reports on the fishery. While accurate, it is not as detailed as the actual surveys. Summaries of various features of the fish boats at four different years are provided in Table II. The remaining presentation generally will be devoted to the results shown in this Table.

Fig. 2 shows McInnes Products Corporation's camp at the beginning of the second season of commercial fishing. All 22 boats were of wooden construction, with a deck below which the catch was stored in bins. The majority (18) were 28 ft. in length and were designed originally for Lesser Slave Lake. Steering wheels and permanent deckhouses were present on only three of the boats. The others were steered by a tiller and were usually completely open. All were powered by gasoline engines of small horsepower and none were

equipped with net lifters, depth indicators or lifeboats. Each boat was operated by two men. Fig. 3 provides a close-up view of some of the boats.

By 1951, the fish boats were very diverse. In addition to 17 boats of "Lesser Slave Lake" design, McInnes Products Corporation had 4 boats of the type used in the Lake Winnipeg whitefish fishery. This boat, illustrated by the *Lorraine* in Fig. 4, was significantly longer and wider with a larger deckhouse. The other companies had boats of these two designs and others as well. The third type, brought from the Pacific Coast, is exemplified by the *Brenda* (Fig. 5). Distinctive features were the pointed stern and aft fish holds. Their length was approximately 35 ft. with a 7 ft. beam. Other boats of the 1951 fishing fleet can best be catalogued as nondescript, as shown by a converted lifeboat (Fig. 6).

Little description is necessary for the fleet in 1958 and 1963, because of the information listed in Table II. Differences between the boats are diminishing as the trend toward the Lake Winnipeg type of design continues. However, it should be noted that each company tends towards a definite style of boat and associated equipment. For example, some favour a steel hull while others choose net lifters. The characteristics of the fleet will be directly dependent on the number of companies involved in the fishery. Thus, the cessation of fishing operations by McInnes Products Corporation after the 1960 summer season not only diminished the variation in boats between the two surveys, but also resulted in an increase in their average dimensions.

The other major category of the fishing fleet is the skiff. It is a maximum of 25 ft. in length, with incomplete or no decking, usually without a cabin and powered by an outboard motor. It is almost always of wood construction. No appreciable differences were found between the skiffs operating in 1958 and 1963. In 1963, most of the skiffs either came from Manitoba or were built by Manitobans who came to Hay River specifically for this work. Their average age

**Fig. 4.** Lifting nets aboard the **Lorraine** (photo by R. H. D. Harris).

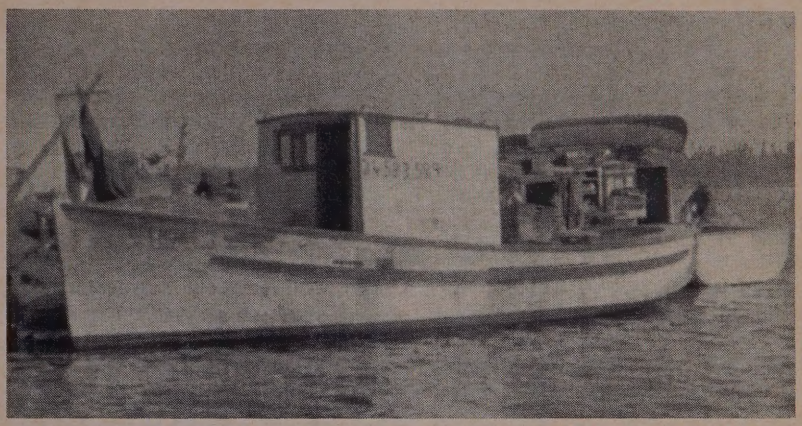

**Fig. 5.** The **Brenda,** a fishing boat from the Pacific Coast (photo by D. C. Scott).

TABLE II

Characteristics of Great Slave Lake fish boats.

(Numbers represent either percentages, the range or the average in parentheses.)

| *Feature* | *1946* | *1951* | *1958* | *1963* |
|---|---|---|---|---|
| Company owned — % | *86* | ? | *95* | *93* |
| From Manitoba — % | *0* | ? | *62* | *82* |
| Age — years | ? | ? | ? | 1–15 (7) |
| Steel hull — % | *0* | *0* | *16* | *50* |
| Length — ft. | (28) | 20–40 | 22–45 (37) | 26–44 (39) |
| Draft — ft. | ? | ? | 1.5–4.5 (3) | 2.0–4.7 (3) |
| Beam — ft. | (7) | 7–14 | 8–14 (10) | 7.5–12.0 (11) |
| Capacity — 1,000 lb. | (5.0) | ? | 3–20 (7.2) | 3–20 (8.9) |
| Diesel — % | *0* | *0* | *4* | *43* |
| Horsepower | 10–15 | 10–80 | 10–160 (77) | 40–140 (80) |
| Cruising speed — mph. | 6–8 (7) | 6–12 | 5–15 (9.5) | 8–12 (10.0) |
| Crew size | 2–3 (2.0) | 2–4 (2.5) | 2–4 (3.1) | 2–4 (3.5) |
| Net lifter — % | *0* | *0* | *21* | *55* |
| Depth indicators — % | *0* | *0* | *43* | *38* |
| Lifeboats — % | *0* | *0* | *48* | *88* |

**Fig. 6.** Fish boat at Hay River in 1949 (photo by Dept. of Fisheries).

was 2 years. The smallest skiff was 17 ft., with the average length being 19.4 ft. Their average draft and beam was 0.9 ft. and 5.9 ft. Capacity was said to range from 300 to 2,500 pounds, the average being 1,600 pounds. The most prevalent size of outboard motor was 18 hp., with the range being from 7.5 to 100 hp. Some skiffs were driven by two outboard motors. The majority of the skiffs were operated by only one fisherman, but others had a crew of two. One skiff had a depth indicator. This was the only fishing accessory found in the skiffs.

## Changes in the Fishing Fleet

Appreciable changes have occurred in the fishing fleet since its establishment at Great Slave Lake in 1945. The original vessels have altered and a new category, the skiff, has appeared. With respect to the boats, several trends are indicated. The first is the increase in general dimensions. The first boats were usually only 28 ft. in length, the average length in 1963 was 39 ft. This is matched by increases in draft and beam. Wooden cabins to provide shelter have been added and, in most cases, eventually enlarged to include sleeping quarters. Crew size has increased 75%.

A second trend has been toward a more uniform boat type. This is probably more the reflection of circumstances, in that during the earlier years, many different boats were pressed into service. The Lake Winnipeg whitefish boat now predominates.

The third trend involves components and accessories. There has been a shift from a wooden to a steel hull. This first appeared in 1955. The diesel engine is now common; the first one was introduced in 1954. Other changes include the installation of depth indicators and net lifters, which first came into use in 1955 and 1956 respectively. While there has been a shift towards larger and better equipped fish boats, the introduction of the skiff exemplifies a tendency in the opposite direction. This indicates the evolution of two categories of vessels, one suited to inshore and "adjacent to the processing plant" fishing and the other independent of them. ⚓

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